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ABSTRACT

This paper shows comparisons among the Chesapeake Bay region of Maryland, the Murray River region of South Australia, and the Rio de la Plata region of Uruguay. Through comparative geography, students are to draw their own conclusions about the similarities and differences of the three regions. Teachers are encouraged to use other resources to aid in the study of these three regions. Environmental information of the regions is presented with the geographic information. A question segment encourages further research. (EH)

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This paper was presented at the conference. It is part of a larger study I conducted as part of my Christa McAuliffe Fellowship research. The title of the fellowship project was: "A Comparative Geography of Three Ecologically Similar Regions." The study compared the Chesapeake Bay region of Maryland with the Murray River region of South Australia and the Rio de la Plata region of Uruguay. The project was designed to be usable by teachers and readable by students. The readings and questions after the readings are complete in themselves. Teachers are encouraged to draw upon other resources to add more depth to this unit. The National Geographic Society has published several articles on all three regions. The pictures in this publication are very useful for instruction.
Using any two of the studies (Australia, Uruguay, or Maryland) permits teachers to use a technique called comparative geography which presents data and encourages students to draw conclusions about similarities and differences in the three regions, There is a great deal of environmental information presented in the study as well as interesting geography.

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THE CHESAPEAKE REGION

The region we live in is dominated by the Chesapeake Bay. It is the most important and largest water body in our region. It is the largest bay on the eastern side of the United States. This is a highly populated region. This region is dominated by many large cities. The most important river flowing into the bay is the Susquehanna River. Other important rivers are the Potomac, Patuxent, Rappahannock, Choptank, and Nanticoke. Together the Susquehanna River and the Chesapeake Bay make an important industrial, economic, cultural, and environmental region. The Chesapeake Bay is an excellent transportation route. Ships provided transportation for people and products. Early in the nineteenth century, railroads became more important that shipping locally. The superhighway has since begun to compete with the railroads.

The Chesapeake Bay was formed over 10,000 years ago when the last Ice Age ended. As ice caps melted, the ocean's level began to rise. The valley of the Susquehanna River was flooded and the Chesapeake Bay was formed. The Bay is a mix of fresh water from rivers and salt waterier from the ocean. Rainfall affects the saltiness of the water, too. This is called an estuarine system because of the mix of fresh and salt water. The Bay near the mouth of the Susquehanna is still fresh water. At the end of the Bay where the Bay meets the Atlantic Ocean, the water is all salt. The mix of fresh and salt water affects the variety of both animal and plant life in the Bay.

Among the important cities located in this region are: Baltimore, Norfolk, and Harrisburg. These are manufacturing and shipping cities. Washington, D.C. is the capital of our country. This region is one of great natural beauty. Thousands of tourists come here every year to enjoy the scenery, cultural amenities, and the environment. Preserving the environment has been a growing concern. The environment has been threatened by several forms of pollution in recent years.

The Susquehanna River rises at Otsego Lake near Cooperstown, New York. The river is important for the states of New York and Pennsylvania. The Susquehanna River provides fifty percent of the fresh water to the bay. At Wilkes-Barre the river is joined by its West Branch. On a map the Susquehanna looks something like a fork with two tines. The river is not good for navigation. The river is too shallow in some places and there

are many rocks and rapids along its course. Short parts of the river are used to transport coal from the mines. The Susquehanna has the potential as a good source for hydro electric power. There are also several nuclear power plants in our region: Peach Bottom, Calvert Cliffs, and Three Mile Island. The Susquehanna River valley is a highly industrialized region. This region is a part of what is called the "rust belt." Many old industries are no longer in operation. Dairy farming is also important in this region. The soil here is very fertile. The mouth of the Susquehanna River is at Harve de Grace. Here, it flows into the Chesapeake Bay.

There are areas of Virginia and Maryland divided by the fall line. Streams and rivers along the fall line make a sudden tumbling as they descend through rapids. The fall line usually marks the place where the river can no longer be used for transportation. The fall line is also important because it was here that water powered industry sprang up. Flour mills and iron smelting are two early industries in this region. Richmond, Baltimore, Washington, D.C., and Philadelphia are cities on the fall line.

Historically, geography and the development of Maryland are joined together. Maryland was a British colony. Many place names are English. We still speak the English language. Maryland was established as a place where people could practice their own religious beliefs. The climate, soil, and terrain were extremely suitable for cash crops such as tobacco which was shipped to England. Although there were many plantation type agricultural businesses in early Maryland, there were many family run farms. These family farms were like farms in England at the same time. Many small towns reflect their English heritage. There are commons in them. A common is a grassy area originally used for grazing land. Now commons are used as public parks. The laws developed in Maryland and the United States reflect the standard laws of England. Many of the holidays and special days observed in Britain are similar to holidays we still celebrate today. Since Australia, too, was at one time an English colony, there are many similarities between Maryland and Australia.

Baltimore is one of our country's largest cities and the most important city on the Chesapeake Bay. The population of the metropolitan area is almost 2,500,000. Almost half of the state's population lives in the metropolitan area. Baltimore has a temperate climate. The summers are hot and humid. The winters are usually mild. It can snow here.

Baltimore is an important city for manufacturing and industry. Steel is made here. Other important products are machinery, food processing, and printing. Baltimore is an important transportation center. Radio and television equipment is made here. Spices, sugar, and meats are important food stuffs produced here. Ships from all over the world dock at Baltimore's harbor. Baltimore is an important cultural center as well.

The population of Baltimore represents ethnic groups from all over the world. The population includes African Americans, German Americans, and Italian Americans. Baltimore also has one of the highest Jewish populations of any city in the world. These ethnic groups give Baltimore an interesting cultural diversity.

The European settlers in this region were helped by the Indians who lived here. These Indians fished in the Chesapeake Bay and ate all sorts of shell fish. They planted corn, squash, beans, and tobacco. These Indians belonged to a greater tribe called the Algonquins. Many of the place names found in Maryland today are names of Indian tribes. Some of these tribes are: Piscataway, Potopac, Anacostans, Nanticoke, Choptank, Patuxent, Pocomoke, Wicomico, Yaocomico, Susquehannock, Conoy, Accomac, Anaco, Arseek, and Cuscarawaoc. The early settlers of this region did not always treat the native population fairly. Can you find these Indian names on your map of the Chesapeake Region?

Not only have Indian words used as place names, the early settlers remembered places in their native lands and renamed places in Maryland after places in England. Worcester and Kent are English counties. Dorchester County was named for the Earl of Dorset. Queen Anne's County, Talbot County, and Prince George's County were named for people who lived in England during colonial times. Look at a map of Maryland and England. You can find may places with the same name. Salisbury is just one example. The same thing can be done with a map of Australia and England. People take their history, geography, and memory with them when they settle a new land!

The Delmarva Peninsula is an interesting geographic creation. Ocean City which is an important vacation resort area is on the peninsula. This area is also known as the Eastern Shore. Tourism has become an important industry. Ocean City is almost 3 hours drive southeast of Baltimore. People come to Ocean City throughout the year. Ocean City is

especially popular during the hot summer months. People come to Ocean City to enjoy the water and participate in water sports. People come to this area to go fishing. There are many interesting things to do here. Since the opening of the Bay Bridge in 1952, more people have been able to enjoy this region.

Assateague National Seashore, south of Ocean City, is an important environmental and recreation area. The beaches are excellent for sunning and swimming. There are nature walks. Be sure to bring your mosquito repellent! This is an excellent place to observe animals and plants in their natural habitat. If you are lucky you might see one of the famous ponies.

There are many other interesting wildlife refuges to visit. The Susquehanna National Wildlife Refuge, south of Harve de Grace is one place. The water here is generally still fresh water. Another site is the Backwater National Wildlife Refuge on the eastern side of the Bay. Here you can see blacksnakes, herons, egrets, and tundra swans. Birds eat underwater grasses and clams. The diversity and number of bird life tells you how healthy the plant and animal life of the Bay is. The water here is more brackish. Brackish means a mix of fresh and salt water. Another interesting place is Virginia's Smith Island (Fisherman's Island National Wildlife Refuge.) Here you can see mallards, pintails, widgeons, blue geese, fox squirrels, and bald eagles. The water here, because of its location, is almost entirely saltwater.

Within each of these regions of the bay there are different habitats. On beaches you can see fleas, and horseshoe crabs.
A similar habitat is called a flat. A flat is caused by the tides. Part of the day it is covered by water. Part of the day it is exposed to the air. There are crabs, snails, and worms. The Bay is not deep in many places. Shallow waters are home to a great diversity of life. Some sea creatures are: clams, killfishes, silversides, shad, flounder, and eels. Here, too, you will find seagrasses and algae. In deep ocean-like waters sea trout and bluefish are found. Wetlands are sometimes called swamps, marshes, or bogs. There are many kinds of wetlands. Swamps usually have some kinds of trees growing in them. Many kinds of animals lay eggs in marshes.

The Delmarva Peninsula is an important agricultural region too. Farmers raise many crops which are sold directly to markets in the region. Some farmers sell their produce at roadside stands. Fresh fruits and

vegetables are enjoyed by many. Some of the products are sold to canning factories. There is a large poultry industry located on the peninsula. Chickens raised here are sent to all parts of our country.

The Chesapeake Bay is suffering from pollution. The time has come to prevent the causes of pollution and to clean up the effects of pollution. The Chesapeake region reaches from Cooperstown, New York, to southern Virginia. There are many metropolitan areas on its shores. Much of the pollution reaching the bay started its journey in the streams and rivers flowing into the bay. There are many sources of pollution. Some causes of pollution are: chemical run off from lawns, chemical run off from farms, untreated sewage, toxic run off from cities, waste oil, car exhaust mixed with rain, fertilizers, and soil erosion.

As the population of the region has grown, the problems caused by pollution have multiplied. The Chesapeake area is in many ways an ideal place to live. This has attracted a mushrooming population growth. People have cut down forests and filled in wetlands. These actions have reduced the number and variety of native species. The bay needs a diversity of plant and animal life. Forests absorb water before it reaches the bay. As population increases forests are reduced. Wetlands are developed, too. Wetlands purify water before it reaches the bay. There is a need for land use planning and enforcement of land use laws.

Soil erosion has been a problem since colonial times. Wind blows away soil and rain washes soil into streams. Erosion causes sediment to cover underwater plants and the nesting waters of fishes. Sea creatures such as fish and oysters cannot survive.
The amount of soil lost in a year can amount to over 21,000 acres.

Since there are fewer fish, the fishermen cannot make a good living. The catch of oysters and clams has been severely affected by pollution. Fishermen themselves often harvest too much seafood. Fish management is important. Numbers of fish caught are regulated. The return of the rockfish is one example of how fish management helps endangered species. Maryland's Department of Natural Resources is one agency that actively cares for the environment. In addition to the rockfish moratorium, the Dept. of Natural Resources has aided in hatching bald eagles, the return of trout in streams, protecting animal habitats with its project open space, and increasing public awareness with such TV programs as "Maryland

Outdoors."

Pollution contributes nitrogen to the bay's ecosystem. This pollution comes in several forms: car exhaust, fertilizer, and animal manure. Chemical fertilizer run off from farms and lawns contributes nitrogen to the bay's water. Animal manure also pollutes rivers and eventually the bay. More people mean more cars. Car exhaust mixes with rain and falls into the bay. Nitrogen makes an excellent fertilizer. The car exhaust problem has been partially solved by requiring car to have catalytic converters.

The nitrogen in the water is a fertilizer which causes abundant growth of algae which crowd out other forms of plant life. Algae floating in water reduces sunlight reaching the bottom of the bay. Plants which normally live on the bottom of the bay cannot survive. All plant and animal life in the Bay are connected by a food chain. When links in the food chain are destroyed the entire eco-system of the Bay is disturbed. Some people also refer to a food chain as a food web. When these plants are gone, the animals which depend on plants for food and shelter also cannot survive. The result is fewer kinds of plants and animals. The bay needs bio-diversity. Two animals directly affected by this process are Canada geese and snow geese. These two animals have adapted by feeding on grains in fields instead of plants that used to be found in their habitat. When water plants die they use up oxygen in the water. There is less oxygen for animals to breathe so the animal population decreases in another way.

Scientists use many system to classify water, plants, and animals which are found in the bay. Most systems use the saltiness of the water and the variety of plant life to determine different types of habitats. Generally, there are three types of water found in the bay. At the mouth of the Susquehanna and other rivers the water is fresh (no salt.) Crabs, snails, worms, and sea grasses live here. Near the Atlantic Ocean, the water is almost as salty as the ocean itself. Stripped bass, bluefish, and, croaker live here. In between lies the third area: a mixture of fresh water and salt water. The bay is quite shallow in many places. Oysters, mussels, barnacles and young small fish such as anchovies or herring live here.

Another form of chemical pollution is phosphates. Phosphates used

to be found in detergents. Maryland, Virginia, and Pennsylvania have banned the use of phosphates, especially in detergents. Phosphates are another kind of chemical fertilizer which causes too much plant life in the ecosystem.

Fortunately, more people are aware of the need for action. Educating people to the dangers and needs of our environment is essential to saving and protecting habitats and our natural species. Many environmental problems occur all over the world. Environmental awareness is a world-wide concern. People in Australia and Uruguay are just as concerned about the environment as we in Maryland are.

QUESTIONS:

1. What are two reasons the Susquehanna is not goof for transportation?

_____

_____

2. Why was the fall line important to early Americans?

_____

_____

3. What products make Baltimore an important manufacturing city?

_____

_____

4. What ethnic groups make Baltimore diverse culturally?

_____

_____

5. What are three reasons people vacation in Ocean City?

_____

_____

_____

6. What is the most important product on the Eastern Shore?

_____

_____

7. Why do people visit Assateague?

_____

_____

_____

8. Why should deforestation be limited?

_____

_____

9. Why are wetlands important to the environment?

_____

_____

10. What are some sources of air pollution?

_____

_____

11. How is air pollution harmful to the bay?

_____

_____

12. How can air pollution be limited?

_____

_____

13. How is fertilizer harmful to the bay?

_____

_____

14. How have the citizens of the Chesapeake Bay region adapted to their environment?

_____

_____

15. Name 4 ways the people of this region have adapted their environment to meet their needs?

_____

_____

_____

_____

16. How has industrial development strengthened our ties with other countries in the world?

_____

_____

_____

17. How does transportation link the citizens of the bay area?

_____

_____

_____

18. How have people's choices had a positive effect on their environment?

19. How has land use changed in Maryland since 100 years ago?

20. How are the Bay's habitats's classified?

COMPARATIVE GEOGRAPHY USING THE FIVE FUNDAMENTAL THEMES

name: BALTIMORE

LOCATION:

absolute:

relative:

PLACE:

MOVEMENT:

ENVIRONMENTAL INTERACTION:

REGION:

COMPARATIVE GEOGRAPHY USING THE FIVE FUNDAMENTAL THEMES

name: BALTIMORE

LOCATION:

absolute:

relative: state of Maryland, Chesapeake Bay, Patapsco River, Mid-Atlantic

States
PLACE: Ocean City, Chesapeake Bay, Orioles, Babe Ruth, Assateague National Seashore, crabs, beaches
MOVEMENT: harbor, shipping, bay bridge, international airport
ENVIRONMENTAL INTERACTION: Save the Bay, water pollution, air palliation, recycling centers, wetland protection, animal rights
REGION: metropolitan, high population, long hot wet summers, vacation area

MAPPING ACTIVITY: List names of professional sports teams and the cities in which they are located. Find these places on your map. Paste a symbol for each city's sport next to the city with that sport. Make a key for each sport.

BASEBALL: _____
_____

FOOTBALL: _____
_____

BASKETBALL: _____
_____

ICE HOCKEY: _____
_____

SOCCER: _____
_____

OTHER: _____
_____

QUESTIONS:

1. Why are there so many professional sports played in this region?_____
_____

Think of one reason for each category which tells why this region is important geographically.

INDUSTRY: _____
TRANSPORTATION: _____

CULTURE: _____

POLITICAL: _____

ENVIRONMENTAL: _____

DRAW A PICTURE AND LABEL ONE OF THESE CATEGORIES:

BIBLIOGRAPHY

Harp, David Water's Way
Blake, Allison Chesapeake Bay Book
Horton, Tom Turning the Tide
Griesner, Robert Chesapeake Bay
Office of MD Environmental Programs Monitoring for Management Actions
Stranahan, Susan Susquehanna, River of Dreams
Meacham, Margaret Secret of Heron Creek
Cummings, Priscilla Chadwick's Wedding
Holland, Jeffrey Chessie, the Sea Monster That Ate Annapolis